

## The Field Trip to the New Jersey Coast and Pine Barrens Friday and Saturday, June 26-27, 1942

E. J. ALEXANDER AND H. K. SVENSON

As in the case with most field trips the participants came from many directions by train and automobile, to join at Point Pleasant. The early departure from New York had left most of the group without breakfast so that an hour or so was squandered in the various cafés of the village, but Doctor Chrysler finally rounded up a party and we proceeded along the railroad track and road to the south of Point Pleasant. We had gone perhaps a quarter of a mile, noticing the large trees of *Quercus phellos* on the roadside, when we were pulled up into a meadow on the east side of the track. This meadow had a good many of the interesting plants to be found along the seacoast above tide-level, such as the two milkweeds, *Asclepias rubra* and *A. lanceolata*, the latter species apparently reaching its northern limit at this point. There was much interest in the yellow flowers of *Oenothera* (Kneiffia), but all the variations seemed to resolve themselves into one species, *O. longipedicellata*. The meadow also had a good deal of *Aletris farinosa*, the white spikes being especially conspicuous at this time of year, and some scattered plants of *Polygala lutea*, a species which is more at home in the pine barrens. A large colony of *Viola Brittoniana* was found here, the plants in full seed. This is an attractive cut-leaved inhabitant of acid coastal soils, rather rare and localized in its occurrence, so that a future trip was planned for the following spring to see the colony in flower.

Making a short turn toward the ocean we came to one of the lagoon-like ponds bordered by a wealth of interesting aquatics. Creeping along the shore were *Myriophyllum tenellum* in great abundance and also the more common *M. humile*; along with a carpet of the small yellow *Utricularia gibba*, *Gratiola aurea*, *Eriocaulon septangulare*, *Hydrocotyle umbellata*, and *Elatine americana*. At the margin of the pond were several specimens of *Ranunculus sceleratus*, an interesting species with exceedingly acrid juice and rare in the New York region. Farther out in the water, to be reached only by deep wading, was a growth of *Potamogeton pectinatus*, a species generally of limestone regions but scattered in semi-brackish ponds along the coast. An hour or two was spent along the borders of this pond which ended up not far from the coastal dunes, where several members of the party had their first glimpse of dune plants such as the ever-present *Euphorbia polygonifolia*, sea-rocket (*Cakile*), seaside goldenrod, (*Solidago sempervirens*), *Artemisia caudata*, and the silvery-leaved *A. Stelleriana*, which is commonly known as Dusty Miller.

Our transportation had been very carefully arranged by Dr. Small, and we caught here the bus going southward to Seaside Park where we were to stop for the night. After lunch, again through the careful planning of Dr. Small, we went by automobile southward to Island Beach, one of the wildest places on the New Jersey coast. This area forming the northern barrier-beach of Barnegat Bay is many miles in length, and since it has been kept under private ownership it is still relatively undisturbed. The dunes on the oceanside were especially colorful with carpets of *Hudsonia tomentosa*, the yellow flowers projecting only an inch or so above the shifting sand. Here the prize find was *Carex macrocephala*, now to be called *Carex Kobomugi*. The staminate and pistillate plants are separate in the species, which forms deep-rooted mats in the shifting dunes. Except for a station at Cape Henry, Virginia, it is not otherwise known on the Atlantic coast; its presence is undoubtedly due to marine shipping. Crossing to the bayward side all of our party were greatly pleased with the large trees of various sorts which had been dwarfed and cut into fantastic shapes by the wind. Here were junipers, hollies with trunks a foot or so in diameter, splendid examples of the southern red oak (*Quercus falcata*) which reaches its northern limit at about this area, and large patches of our native cactus (*Opuntia compressa*).

Some of us were even more interested in the vast and variable numbers of blueberries which filled the bushes in the damp hollows. Some of these hollows had sphagnum with the pink orchid (*Pogonia ophioglossoides*) and in one of the little depressions were plants of the smallest of the bladderworts, *Utricularia cleistogama*. In all these hollows there were also plenty of mosquitoes. This long tongue of land is only a few hundred yards in width and the sheltered bayside was soon reached. Here just above the high-water mark were vast rows of the so-called ditch grass (*Ruppia maritima*), cast up by the tide, and just one fragment of the related *Zannichellia* was found. Along these beaches were numerous plants of the sow thistle (*Sonchus arvensis*) with attractive large yellow flowers, a species not common in our region. The salt marsh just to the southward was investigated by some of the members, in spite of the mosquitoes, and here were found numerous clumps of *Kosteletzkya virginica*, a mallow characteristic of salt marshes and reaching its northern limits on Long Island and the Hackensack Meadows. By this time some of the members of the group had become isolated in various blueberry thickets and others were already beginning the homeward journey of three or four miles to Seaside Park. Among the interesting plants along the road were several clumps of roses of which the identity has not yet been established. In one of the roadside ditches were found two clumps of purple loosestrife, *Lythrum Salicaria*, hitherto unreported from this region.

We spent the evening and night at Seaside Park (this closely built-up town is on the seashore but none of us was able to find any trace of a "park"). The town is connected with the mainland by a railroad which runs over a trestle across Barnegat Bay. It was originally planned to reach Toms River by this railroad, but our director of transportation, Dr. Small, had found that a motorboat could be obtained for a little more than the train fare.

At an early hour on Saturday morning, under a threatening sky, we were embarked for Barnegat Landing, some four or five miles across the bay to the westward, with a walk of five miles ahead for Toms River. Shortly after leaving the boat it began to rain in earnest, but this rain proved to be only a shower and the weather soon partially cleared. After we had disembarked, our road led through salt marshes and finally to the sandy pine woods characteristic of the pine barrens. Nothing striking was seen in these salt marshes; but at the upper margin was a good stand of *Rynchospora Torreyana*, a species which is not too abundant, and well-marked clumps of *Eleocharis ambigens*, the representative of *Eleocharis palustris* along the southern coastal plain. As we left the salt marsh area the rain had stopped and we visited bogs with cotton grass (*Eriophorum*), pitcher plants, and *Calopogon* on the way. Some of the party stopped to browse over a burned area which was studded with *Arenaria caroliniana* and *Lobelia Canbyi*, *Liatris graminifolia* not yet in flower, and the five coastal Eupatoriums, *E. album*, *E. hyssoifolium*, *E. leucolepis*, *E. verbenaeifolium* and *E. rotundifolium*, and a long discussion was held over the differentiation of these species. The oaks, especially possible hybrids, were the subject of a good deal of argument, as was also the question of whether *Pinus rigida* could always be determined from *P. echinata* by the character of the bark. Both species of pine were here in approximately equal numbers. Probably the most interesting discovery of the whole trip was that of *Oenothera rhombipetala* in a vacant lot at River Bank; this species is reported in Gray's Manual as being known from Indiana to Minnesota, Nebraska, and Texas. Our five mile walk having been completed without much rain, we landed in the village of Beachwood in time for lunch and a heavy downpour. Since our party now numbered about twenty-six we pretty nearly cleaned out the eating facilities of the village. A few who had important business in New York left the group at this point, but the rest of us proceeded in a bus southward to the botanical stamping ground of Forked River, and especially to the middle branch where there is a bus-stop bearing the name of Ostrom. From here it was only a short walk down to the river. Our principal plant of interest was the curly grass (*Schizaea pusilla*), a small fern which has always been the most interesting single attraction of the barrens. Although one may know the exact location of the plant from past experience, it is not always easy to find. This was true in the present case, but the tiny plants were finally located in little hollows among

the *Dendrium* bushes, associated with *Lycopodium* and the orange milkwort (*Polygala lutea*). In another location to the south the plants grew adjacent to *Pyxidantha* and *Drosera filiformis* in an open pathway where there was a slight accumulation of sphagnum moss. The flora along the margin of the river was as brilliant as any of us had ever seen in the pine barrens, and the slightly cloudy weather tended to enhance the golden flowers of *Lophiola* and *Narthe-cium americanum*, both now in full bloom. In shallow water there was an expanse of yellow bladderwort (*Utricularia cornuta*), with little islands formed entirely of red-leaved sundew (*Drosera intermedia*). Floating in the deeper water were many colonies of *Utricularia fibrosa* and *U. macrorrhiza*. Here the pitcher plant (*Sarracenia*) filled up shallow coves in unbelievable abundance, but flowering time had long passed. It was with regret that we plodded back a mile or so to the bus-station, since we all felt that the region could have stood a couple of days' exploration at the least; but our walk was somewhat enlivened by the large number of stray species, such as *Polygonum cuspidatum*, which are now appearing on the roadside rubbish-piles, characteristic of so many of our highways.

While the bus and train took us toward New York, our party became smaller as the members took their various ways home. Headlines in the newspapers of fellow passengers reminded us of the sterner events in the world at large, and made us appreciate all the more the respite we had enjoyed of a few days in which to dwell upon the botanical achievements of the last seventy-five years, and the opportunity to visit again some of the favorite collecting grounds in the range of the Torrey Club. Thus, drew to its close, the Seventy-fifth Anniversary Celebration of the Torrey Botanical Club.